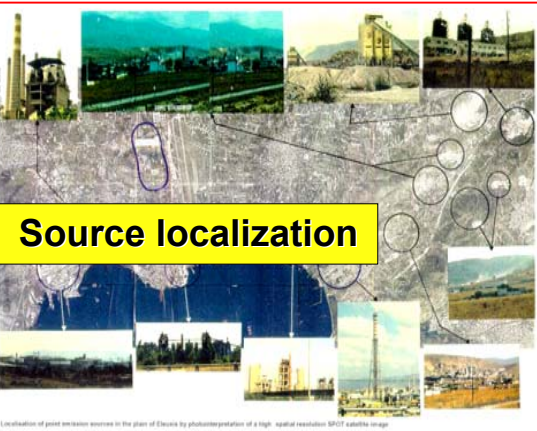
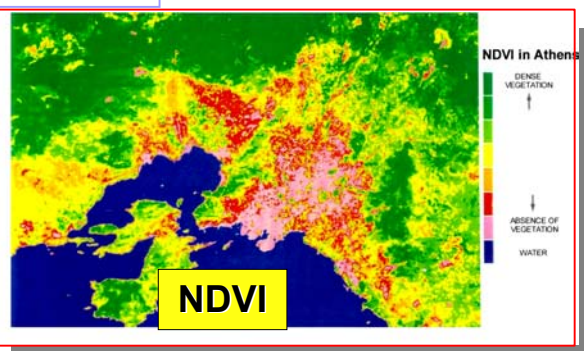
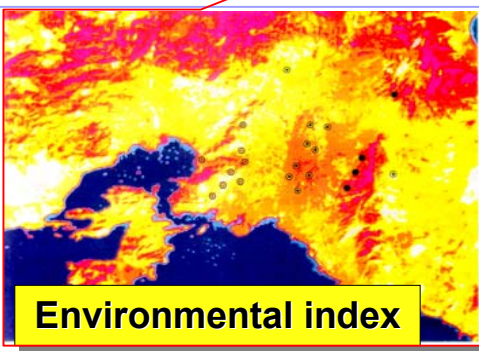
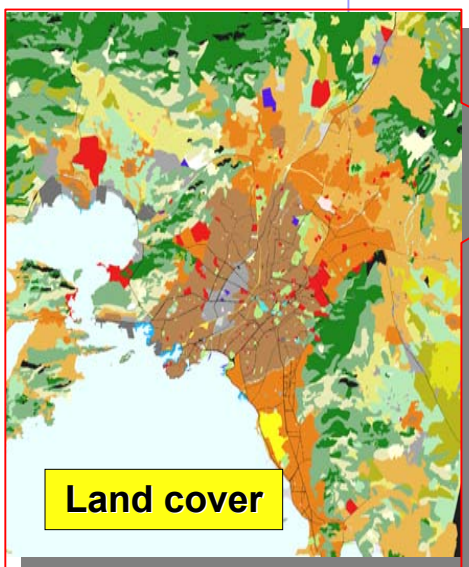
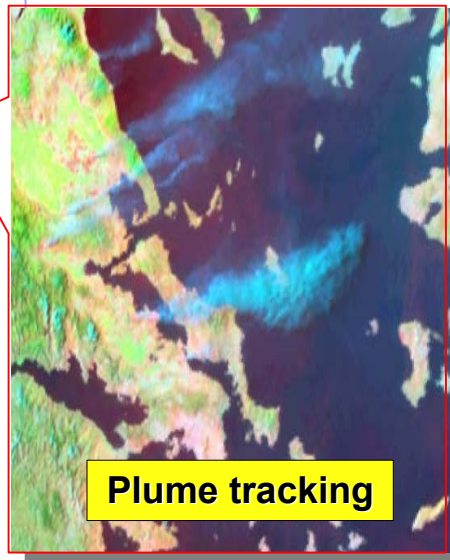
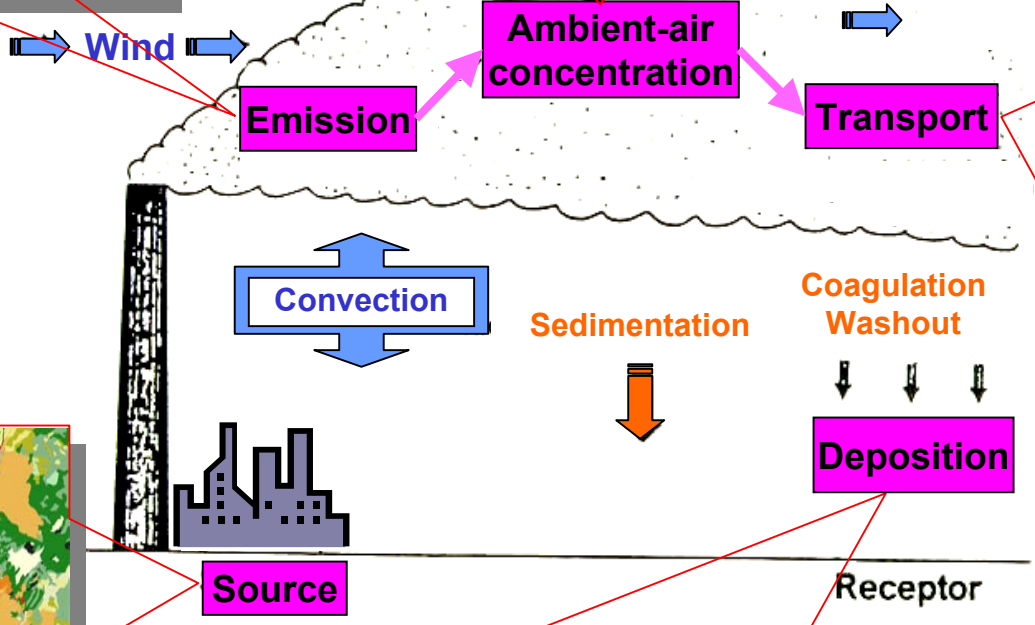
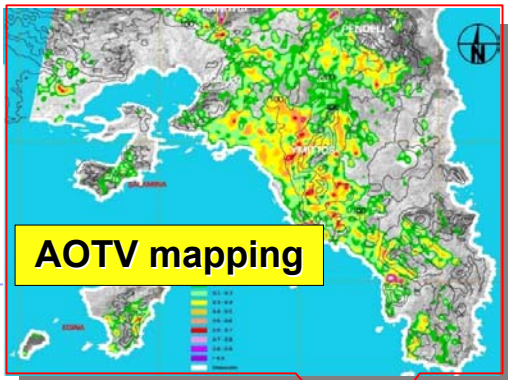


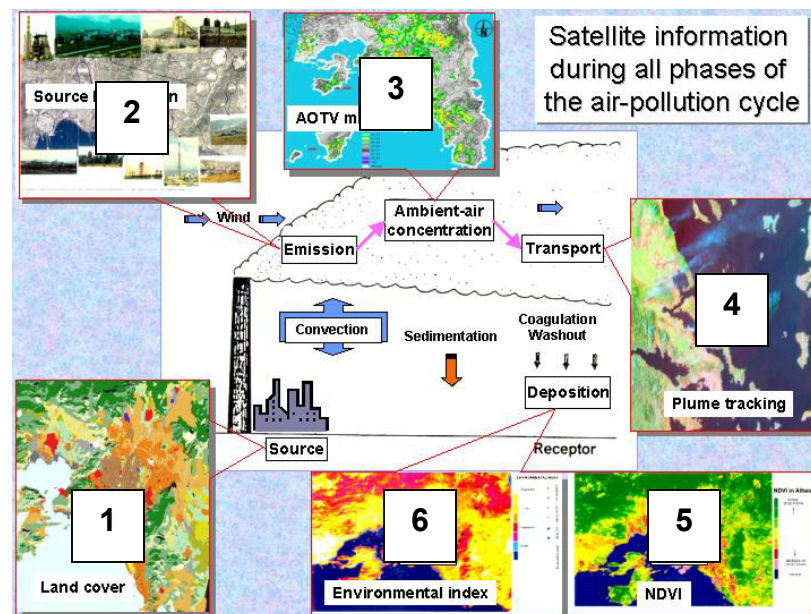
# Satellite information during all phases of the air-pollution cycle

Source localization



AOTV mapping





### SATELLITES CAN INFORM US ON AIR POLLUTION DURING ITS DIFFERENT PHASES:

from the generation through ambient-air concentration and transportation to the deposition of pollutants on the ground

- 1 Pollution Sources: High-resolution satellites (e.g., Landsat) are used for land-cover mapping indicating area pollution-sources and the type of pollution that should be expected.
- 2 Emissions: Very high-resolution satellites (e.g., SPOT, IKONOS-2) can identify isolated point pollution emissions, and can even help quantifying the emissions introduced by traffic in big cities.
- 3 Air Quality: Landsat and EO-1 allow mapping reliable urban air-quality indicators such as, the aerosol optical thickness in the visible (AOTV).
- 4 Pollution Transport: Moderate-resolution satellites (e.g., NOAA, SeaWifs) can track the dispersion of pollution plumes for hundreds of kilometers downstream of their sources. At the global scale this task is carried out by low-resolution sensors (e.g., TOMS, MOPPIT).
- 5 6 Pollution Deposition: Satellite-based environmental indexes (e.g., NDVI) can assess the impact of certain pollutants (e.g., acid droplets) on the vegetation.

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July 2001